WHAT IS CLAIMED IS:

1.(amended) An imaging system comprising:

an imaging device which outputs a plurality of digital signals each of which indicating an amount of light irradiating on a corresponding one of a plurality of pixels on which light irradiates;

a first reducing device which reduces an amount of data of the plurality of the digital signals output by said imaging device;

a second reducing device which reduces an amount of data of the plurality of the digital signals output by said first reducing device;

a memory which stores digital signals;

a memory controller which stores the digital signals input thereto to said memory, and reads the digital signals from said memory to output the digital signals;

a driver which drives said imaging device;

a function controller which controls a transfer of digital signals among said first reducing device, said second reducing device, and said memory controller; and

a mode setter which sets one of a first mode and a second mode to each of said driver and said function controller;

wherein said function controller inputs the plurality of

the digital signals output by said first reducing device to said second reducing device, and inputs the plurality of the digital signals output by said second reducing device to said memory controller when the first mode is set by said mode setter, while inputs the plurality of the digital signals output by said first reducing device to said memory controller, and inputs the plurality of the digital signals output by said memory controller to said second reducing device when the second mode is set by said mode setter.

2.(deleted)

3.(deleted)

4.(deleted)

5.(amended) An imaging system comprising:

an imaging device which outputs a plurality of digital signals each of which indicating an amount of light irradiating on a corresponding one of a plurality of pixels on which light irradiates;

a pre-processor which reduces an amount of data of the plurality of the digital signals output by said imaging device;

a memory which stores digital signals;

a memory controller which stores to said memory the plurality of the digital signals output by said pre-

processor, and reads the plurality of the digital signals from said memory;

wherein the plurality of the pixels include a set of pixels each of which detecting light of a corresponding one of a plurality of color components;

said imaging device outputs the plurality of the digital signals each of which indicating an amount of light detected by a corresponding one of the plurality of the pixels on which light irradiates;

said pre-processor comprises:

a first white balance adjuster does white balance adjustment by adjusting a gain of a plurality of digital signals in correspondence to each of the plurality of the color components output by said imaging device, using a predetermined gain in correspondence to each of the plurality of the color components;

a detector which detects, using the plurality of the digital signals output by said first white adjuster, a first average signal amount which indicating a first average value of a signal amount of the plurality of the digital signals for one screen in correspondence to each of the plurality of the color components;

a calculating device which calculates a first gain to be applied to the plurality of the digital signals in correspondence to each of the plurality of the color

components so that the first average signal amounts in correspondence to the plurality of the color components are the same; and

a second white balance adjuster which does white balance adjustment by adjusting, using the first gain corresponding to each of the plurality of the color components calculated by said calculating device, a gain of the plurality of the digital signals in correspondence to each of the plurality of the color components output by said first white balance adjuster.

6.(amended) The imaging system according to claim 5, wherein said pre-processor further comprises a gradation correcting device; and

said gradation correcting device converts the plurality of the digital signals input thereto to a plurality of converted digital signals each of which having a predetermined amount of information smaller than an amount of information of each of the plurality of the digital signals input thereto, by correcting gradation of the plurality of the digital signals input therein.

7.(amended) The imaging system according to claims 5 or 6, wherein said pre-processor further comprises a compression device which compresses a plurality of digital

signals input thereto to reduce an amount of information of each of the plurality of the digital signals.

8.(deleted)

9.(deleted)

10.(amended) An imaging system comprising:

an imaging device which outputs a plurality of digital signals each of which indicating an amount of light irradiated on a corresponding one of a plurality of pixels on which light irradiates;

a pre-processor which reduces an amount of data of the plurality of the digital signals output by said imaging device;

a memory which stores digital signals; and

a memory controller which stores to said memory the plurality of the digital signals output by said pre-processing, and reads the plurality of the digital signals from said memory to output the plurality of the digital signals; wherein said pre-processor comprises:

a thinning out device which thins out the plurality of the digital signals output by said imaging devices; and

an interpolation device; wherein said thinning out device outputs a first control signal a level of which changes at a constant cycle to said memory controller;

said interpolation device interpolates the plurality of the digital signals output by said imaging device to output a plurality of interpolated digital signals obtained as a result of the interpolation;

said pre-processor outputs the first control signal and the plurality of the interpolated digital signals to said memory controller together; and

said memory controller stores to said memory only a digital signal among the plurality of the digital signals which the digital signal is input to said memory controller when the control signal is at a predetermined level.

11.(deleted)

12.(deleted)

13.(amended) The imaging system according to claim 10, further comprising:

a release button;

a second detector which outputs a status signal indicating whether said release button is pushed or not; and

a thinning out controller which starts or stops an operation of said thinning out device in accordance with the status signal output by said second detector.

14.(amended) The imaging system according to claims 10 or 13, further comprising:

a processor which processes digital signals;

a mode switching device which outputs a mode signal indicating one of a first mode and a second mode; and

a mode control device which controls said memory controller in accordance with the mode signal output by said mode switching device; wherein

said processor includes a first compression device and a second compression device; and

said mode control device makes said memory controller read the plurality of the digital signals from said memory to output the plurality of the digital signals to said first compression device when the mode signal indicating the first mode is input, while makes said memory controller read the plurality of the digital signals from said memory to output the plurality of the digital signals to said second compression device when the mode signal indicating the second mode is input.

15.(amended) The imaging system according to any one of claims 10, 13 and 14, further comprising:

a selector which selects the number of recording pixels to output a second control signal indicating the number of recording pixels selected thereby; and

a ratio control device which determines a ratio of thinning out the plurality of the digital signals in accordance with the signal output by said selector, and controls a change cycle of the level of the control signal output by said thinning out device in accordance with the ratio.

16.(amended) The imaging system according to any one of claims 5 to 7, wherein said pre-processor further comprises a gain adjuster which adjusts a gain of the plurality of the digital signals input thereto;

said detector detects a second average signal amount which indicates a second average value of a signal amount of the plurality of the digital signals for one screen output to be input to said gain adjuster;

said calculating device which calculates a second gain to be applied to the plurality of the digital signals to be input to said gain adjuster so that the second average value equals to a predetermined value; and

said gain adjuster adjusts, using the second gain, a gain of the plurality of the digital signals input thereto.

17. An imaging system comprising:

an imaging device which outputs a plurality of digital signals each of which indicating an amount of light

irradiating on a corresponding one of a plurality of pixels on which light irradiates;

a pre-processor which reduces an amount of data of the plurality of the digital signals output by said imaging device;

a memory which stores digital signals; and

a memory controller which stores to said memory to the plurality of the digital signals output by said pre-processor, and reads the plurality of the digital signals from said memory to output the plurality of the digital signals; wherein said pre-processor comprises a compression device which compresses the plurality of the digital signals input thereto to reduce an amount of information of each of the plurality of the digital signals.

18. The imaging system according to claim 17, wherein said compression device compresses the plurality of the digital signals input thereto into the plurality of the digital signals all having the same amount of information.